



Nest and eggs of Crested Turaco

Eggs 2, about to hatch. Color immaculate pale blue. Size; 42 X 34; 43 X 33. Nest a mere lattice of sticks near the end of a horizontal bough of a large thorn-tree; nest about 35 feet above the ground. When the female was seen sitting it was hard to see any nest at all, the structure being so slight. Female collected shot as she flew from nest, April 18, 1912; Gato River near Garcha, Abyssinia. Broken shells preserved. One of the young emerged spontaneously, 130th Opened & were alive & healthy. Preserved in alcohol. Bodies fully feathered; feathers wiry like young Cuckoos.

Lydford, Forester, Kenya. Photographer Nairobi

Centropus superciliosus. - A nest brought me by a native boy, at Gato River, 15 miles south of Lakes Abaya, April 28, 1912, contained 3 young. The nest is a slovenly structure compounded of a messy mixture of coarse grasses, green and dry leaves, small sticks, and a good deal of dirt mixed with rubbish from the ground. 2 young skinned, 1 in alcohol.

May 17, 1912. - Gato Camp to near Komo Village

May 18, 1912. - To Kormali Village.

11

May 17, 1912. Gato River near Gardula to Gato River
crossing, 15 miles south.

Bogotá
Cundinamarca
Colombia

Birds seen from Aletta to

Green Heron

Ret-tailed Black Rail

Wat'then

Sunbird typical one rufous tail, black head size of *Daloscoptes*, short tail

Lugomystica, black crown

Woodpecker, large, dark below

Hornbill, orange & white bill
" black bill, white at side

" red chest, yellow ventrals

Sunbird, violet, white below

Large Red-rumped Weaver

" " Agre-tailed Shrike

Jay, straight bill, small

Olivacea, very large

Hippotheres very small nest D

" medium

Red-headed Weaver, black face

B. batesia, yellow stripes wings, red crown

Francolinus, alaensis style

Bustard, small, white breast, black neck

Hornbill, large, same as B. E. diff.

Pycnonotus dodsoni, yellow w. t. c.

Eremomela, grackle, yellow br.

" small

March

To May 21

Wobok

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Mary and Joseph
1912

1912

June

<i>Schistreps cristata</i> (white-tailed)	
<i>surser legens</i>	
<i>Trochocercus nitoreus</i> (white breasted dove)	-
<i>Lophocœtes occipitalis</i>	-
<i>Barbatula?</i> loud note	
<i>Cisticola rufous + striped</i> ^{large SKI} head, tail	
Bell Shrike	
Green + yellow Sunbird (skin)	-
<i>Pyromelana xanthostoma</i>	-
Estrildidae red on wings	
Starling, beautiful white-bellied	
Red-billed Ox-pecker	
Waterhen.	
Black Rail, red leg	
Rail, small spotted wings	
Large, long-tailed Weaver (skins)	-
Blue & Yellow Swallow	
Blue Swallow, white breast	
" " , striped ^{rumpled} breast, red	
" galouzy, ^{or} small size bird skin	
Flycatcher, grayish, rufous tail	
Hornbill, large, brown above	
<i>Procnias</i>	
Oriole	

	Yankee River	Camp 162	Yankee River	Camp 162	Yankee River	Camp 162	Yankee River	Camp 5	Yankee River	Camp 5	Yankee River	Camp 6	Yankee River	Count of Thickta River
	15	16	17	18	19	20	23	23	23	23	23	23	23	4
Sitmouse, black and white	-	2	6	-	-	-	10	2	-	-	-	-	-	20
Weaver, blk. + yellow, rest front of head yellow	2	10	2	-	-	-	-	-	1	-	-	-	-	-
Wt in Thrush, red bill, naked around eye	2	25	2	-	-	-	-	-	-	-	-	-	-	-
Cinnyris falkensteini	✓	4	10	20	20	10	2.	-	-10	-	-	-	-	-
Starling, long-tailed, tail cross-barred	10	20	20	-	2	3	30	30	500	100	200	50	20	-
Plotus					2	-	-	-	-	-	-	-	-	-
Herodias alba	✓				2	-	-	-	-	-	-	-	1	-
Ceryle rudis	✓				4	-	-	-	-	-	-	2	10	-
Halcyon chelicuti	✓				4	4	6	2	6	6	25	10	4	2
Minya africana	✓				-	-	1	-	-	-	-	-	3	-
Indicator	✓				1	-	-	-	-	1	-	-	10	4
Erythropygia (rubron: white on wing + tail)					10	20	20	-	-	-	4	10	4	2
Prionops	✓				10	10.	-	-	-	-	-	10	-	-
Sigmodes g. acutimus	✓				2	-	-	-	-	-	-	10	5	-
Eurocephalus rufipennis	✓					50	20	25	100	50	100	20	10	30
Moracilla (longicauda?)	✓				4	-	-	-	-	-	15	-	6	10
Petronia pyrogaster	✓				20	30	40	10	20	20	-	-	-	-
Atrilda astrild					-	-	100	-	-	-	10	-	-	-
Burbot, large, white head					-	-	-	2	2	-	-	-	4	-
Francolinus (superior primaries) ^{superficialis}								30	10	-	-	-	25	-
Cinnyris golden green with dark								-	-	-	-	?	4	-
Finigillaria black head stripes								-	-	2	25	10	-	-

	Left of Shanya Hill & River	Crossed Attri River on the Donio Ghati S.	From Indian Store S. of Donio Sank to hillside Ridge across Yuga stream With streams away by hill attri fence	Telohi Ghati Attri U. Barlowry	Attri River U. Barlowry	Karosi	Encampment 4 7396 feet
	August 28	29	30	31	Sept	1	43
Dusky Weaver, larger, dull rump	✓	50 50	—	—	50	—	—
Francolinus Kochii?		✓	✓	—	—	—	—
Craterops	dry white	White bellied 7-sisters	15 50 skin	4	—	—	—
St. Phainops (coronata?) not coronata (skin)		4 10	—	20 50	4	—	—
Barbet, long-tailed, large		10 10 nest	4	10	—	—	—
Emin's Buzzard Eagle		✓	— 2	—	—	—	—
Bradyornis Fischeri		✓	Chaka attri 6 4 attri	—	20 20	—	—
Slender bird, nearly as large as Centropus, drab-gray		— 1	—	—	—	—	—
Woodpecker, smaller, golden-winged species		—	—	4 10 4	—	—	—
Locusts		✓	—	4 4	—	—	—
Centropus superciliosus		✓	— attri 2	10 4	2	—	2
Batis		✓	— 2	10 2	—	—	—
Leisticola, rufous crown, small		✓	— 25	200 100	—	—	—
Urogithius, Red-eared Waxbill		✓	— 50	20 —	—	—	—
Barnatula, small (skins in Roosevelt collection)		—	— Yuga 2	—	—	—	—
Large black + yellow Bishop-bird		✓	20 20	20 50 50 10	20 500	—	—
Stephaniops coronata		✓	— 2	50 50 6	—	—	—
Francolinus schmutzii		✓	— 1	15 —	—	—	50
Hawk, small		—	—	2 —	—	—	1?
Otococles, large species		✓	— 1	—	25 200 100 50	—	—
Ichthreos (sulfur tail)		✓	— 1	— 4	—	—	—
Mirafra, Large, rufous wings (skin)		✓	— 1	— 50 50 40	—	—	—

	Indian Soni to Digha P. Aug. 31	Calcutta Aug. 31	Kalna Aug. 31	Nalhati Aug. 31	Guadahar Aug. 31	Great Ghar Aug. 31
	30	31	1	2	4	12

Laniocera, small, paled, short tailed	✓	10	20	200	-	-
Ceryle rudis	✓	2	4	4	-	-
Buteorides atricapilla	✓	1	2	2	-	-
Phalacrocorax, small	✓	-	1	1	-	-
Ostrich	✓?	-	20	2	-	-
Waterhen	✓	-	1	-	-	-
See Black Rail, red bill + legs	✓	1	2	2	-	-
Great Bustard (Skinner Dennis)	✓	1	2	2	-	-
Black-shouldered Kite	✓	-	4	5	-	-
Kestrel	✓	-	-	1	1	-
White Heron, dark on dorsum of wings	✓	1	2	2	-	-
Trogon sharpei	✓	1	2	-	-	-
Scopus umbrella	✓	1	2	-	-	-
Dicroura episcopalis	✓	-	1	-	-	-
Hoquadasha	✓	1	2	2	-	-
Oedicenus vermiculatus	✓	2	4	2	-	-
Narina	✓	2	5	2	-	2
Orange-breasted Shrike	✓	4	6	-	-	-
Typhlops istria tympanistria	✓	-	-	-	-	1
Pisobia minuta	✓	-	-	-	-	3
Poicyphales massacrensis	✓	-	-	-	-	200
Irrisor jacksoni	✓	-	-	-	-	1

	Indian Store To Ghat on D. River or stream near the Athic River	Aug 30	Aug 31	Sep 1	To Ootacamund Station At Other H. Railways Narobi	Specimen at Nairobi 7390 feet
Galius (skins)	✓					300
Turacæ, red-winged	✓	-	-	-	-	200
Green Luekoo	✓	-				1
? Parbat, red head + etc; belly yellow; back skin green ✓	-	-	-	-	-	2
Woodpecker, green, finely cross-barred below skin ✓	-	-	-	-	-	1
Swallow, all black	✓					200
Brady's sis (skins)	✓					20
- Breast, gray head, yell. breast green skins ✓	-	-	-	-	-	10
Cryptolopha	skin ✓	-	-	-	-	10
Helianthus	skin ✓	-	-	-	-	20
Bulbul, gray head, yellow belly, green back skins ✓	-	-	-	-	-	25
Bulbul, gray-green, yellow chin skins	-	-	-	-	-	10
Bulbul, gray-green, pale yellow below skins ✓	-	-	-	-	-	15
Pycnonotus lavigardi fayi. skins ✓						
Merula elgonensis	✓	-	-	-	-	100
Cossypha (2 skins)	✓					10
Pratincola (skins)	✓					100
Myrmecocichla cryptoleuca	✓	-	-	-	20	-
Euphonia or Burmesia (2 skins)	✓	-	-	-	-	10
Cisticola juncidis	✓	-	-	-	-	500
Shrike, black + white, chestnut neck skins patch ✓	-	-	-	-	-	100
Bell Shrike	✓					50

		Escarment 7390 feet
Fr	<i>Sophanophilus</i>	4 12
Fr	[<i>Nectarinia</i>] <i>climensis</i> skins	200
Fr	<i>Nectarinia splendens?</i>	" 100
Fr	<i>Drepanopterus richmondi</i>	" 100
V.	<i>Laniarius medius</i>	" 500
T.	Zosterops, brownish crown	" ✓ 100
T.	Finch, greenish (skin?)	" " 1
S.	<i>Serinus</i> , striped below	" 1000
P.	<i>Pentheria ardens</i>	" ✓ 500
G.	<i>Drepanopterus jacksoni</i>	" ✓ 100
C.	Weaver, black line thru eye	" 20
T.	<i>Diervilla</i>	" ✓ 2
B.	Starling, chestnut wing-feather	" ✓ 100

The Maribou Stork when soaring high has
the neck retracted like a heron (Aug. 23) \$5

Batis has a nasal honk note resembling Sitta (Aug. 24)
Two Black-bellied Pionopsittae, immature ^{males}, differ
from an adult male killed at same time (same
flock) in having the eye-wattles brownish instead
of bright red, and the bill with dusky markings,
and the feet lighter red. I did not note the color
of the iris before skinning.

Pternistes. - Flock (♂ + ♀ shot) found on top of a high
rocky hill (full of Dassies), at Big Bend, Shaka R.

Pseudogyps

There are 7 fresh specimens before me.
(See table of weights & measurements, p. 39.)
From the resemblance in size and form I
am satisfied that these 7 are conspecific.
The neck is long and slender, the skull
narrow; nostril vertical, or parallel to side
of base of culmen.

Skin of
head + neck is slatey
black, like the bill
& cere, head sparingly covered with fine
hairs, thickest on top of head, colored dirty white;
neck more or less covered with tufts
of down, quite heavy on the nape; Chest
patch fuzzy, sooty brown. Feet & claws slatey
black. Iris, in all seven, very dark brown.
Nos. 4, 5, & 7 have white rumps & backs, 4+5
have this white faintly tinged with clay color,
perhaps dirty. Nos. 1, 2, 3, and 6 represent
a different plumage, dark below, under
wing-coverts dark, rump & back dark,
neck ruff darker, with feathers narrower and
centrally streaked with whitish like the
sides & underparts. I suppose the white
backed birds to be adult, the dark
backed immature. Using "adult" to
indicate white-backed & "immature" to

indicate dark-backed birds I will describe
the plumage of the seven fresh birds. All
have the soft parts colored slate, except that
the long, nearly naked necks of adults are
practically all slatey black, while the young,
from head to ruff are mixed with large
areas of greenish flesh color, in one
specimen the slatey black only appearing as
occasional reddish spots on the lower neck.
All have the entire head slatey black. The oldest
is No. 7 (skin preserved). The primaries, secondaries,
& longest tertials are grayish black, as is the
bastard wing and outermost greater wing-coverts;
rest of upper side of wing, & upper back, cinnereous
the feathers bordered with pale buff. Back and
rump white, as is the long, ~~long~~ fuzzy
down covering the skin between the
^{grayish black above and below} feather-tracts. Thighs externally cinnereous
^{internally covered with pure white down} buff or clay color. Crop patch dark brown.
An inconspicuous neck ruff, above only, is
whitish drab, not much paler than
the upper back. Under side of body pale
drab, the feathers having slight indications
of a whitish shaft-streak; under wing-coverts
white. The greater ones broad, tipped on
upper margin with grayish black; under tail-coverts
brownish black.

Nos. 4 (δ) and 5 (φ) differ only in having the under surface of body less uniform pale drab, the feathers showing distinct traces of whitish shaft-streaks; rump slightly tinged with clay color. These birds are ^{probably} not quite so fully adult as No. 7. Adults when on wing show the white backs very clearly, or the white under wing-coverts, according to position in the air. Immature birds of course appear all dark.

Immature (Nos. 1, 2, 3, and 6) differ from adults in lacking the white back & rump, and the white under wing-coverts. The upper wing-coverts are dark brown, more or less bordered with drab. The under wing-coverts, outer aspect of thighs, back & rump are dark brown with broad, dirty-white shaft-streaks.

Weights and measurements of Vultures.

Bodessa, Abyssinia May 28, 38'2

No.	Sex & age.	Weight, pounds, avoird.	Length of body, inches.	Alar expanse.	Wing, measured straight.	Tail.	Culmen (chord from cere).	Depth of bill.	Tarsus.	Middle toe, to end of digits.	No. of tail-feathers.
1	♂ imm.	11.50	35.00	88.00	23.40	10.50	1.80	1.30	4.00	4.10	
2	♂ imm.	12.00	34.50	87.50	23.75	10.40	1.80	1.30	3.75	4.30	
3	♂ imm.	11.25	34.80	85.50	23.75	10.60	1.8.5	1.30	3.65	4.00	
4	♂ ad.	12.00	35.50	87.00	23.5	10.5	1.90	1.45	3.90	4.40	
5	♀ ad.	11.50	35.00	85.00	22.50	11.00	1.90	1.30	3.65	4.15	
6	♀ imm.	13.00	35.75	84.	22.75	11.25	1.75	1.25	3.35	4.20	
7	♀ ad.	13.40	34.5	87.0	23.5	10.0	1.80	1.20	3.40	4.25	
8	♀ ad.	9.50	2 $\frac{9}{12}$	7 $\frac{5}{2}$	2 $\frac{1}{2}$	11 $\frac{1}{2}$	2.00	1.45	4.60	3.55	<i>L. occipitalis?</i>
9	♂ imm.	4.90	28.00	71.00	21.00	10.00	1.40	.70	3.60	3.00	<i>N. monachus</i>
8	♀ ad.	9.50	33.00	89.50	24.50	11.50	2.00	1.45	4.60	3.55	

I send all of the above personally. 8 a.m.

Pseudogyps africanus.

"	"
"	"
"	"
"	"
"	"
"	"
"	"
"	"

See *de Saussure*, pp. 37, 38.

This bird brown. Measurements smaller than *P. bidentatus*.
Tarsus pale bluish gray. Head coated with white.
Lophogyps occipitalis? Inner secondaries pure white.

Mammal register

- 7572 (Kangaroo style)
 301. Mouse, soft-haired. ♂ ad. Bodeesa, Abyssinia.
 7573 " " ♂ ad. " "
 302. " " ♂ ad. " "
 7574 " small, spiny. ♀ ad. do
 303 " " ♀ ad. do
 7575 " " ♀ ad. do
 304 Kangaroo Mouse ♀ ad. do
 7576 Elephant-Shrew ♂ ad. Sagon River, Abyssinia.
 305 vertebræ, 135; hind foot, 38; ear, crown, 22;
 7577 Xerus / ♀ ad. Sagon River, Abyssinia
 vertebræ, 205; hind foot with claw, 57
 7578 Xerus / ♂ ad. Sagon River, Abyssinia
 vertebræ, 205; hind foot, with claw, 58
 7579 Xerus / ♂ ad. Sagon River, Abyssinia
 tail vertebræ, 233; hind foot, 57
 7580 Xerus / ♂ ad. Sagon River, Abyssinia
 shot at No. 308, ♂ ad. sitting up
 7581 Xerus / ♀ Sagon River, Abyssinia
 7587 311. Spiny Mouse. ♀ ad. do
 cinnereous above, white below.
 7588 312. Kangaroo Mouse. Jerboa. ♂ ad. Sagon River
 7589 313. Mouse, soft-haired. ♂ imm. Vertale
 7590 314. Spiny-haired Mouse ♀ imm. " "
 7591 315. do ♀ " "
 7593 316. Rat, soft-haired. ♂ " "
 7594 317. Elephant Shrew ♀ ad. " "
 7595 318. Merskat X Wobok "

Mammal register.

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- May 25, 1912. Trapped in my tent. Large sp.
 " do " do "
 " do " do Small species
 June 1, 1912.
 " 4, " Iris brown. Head + body, 140; tail
 ear, notch at base, 26; tip of nose to eye, 32; to occiput, 50.
 June 4, 1912. Iris brown. Head + body, 210; tail
 June 4, 1912. Iris brown. Head + body, 240; tail
 June 4, 1912. Iris brown, Head and body, 240;
 June 4, 1912. Iris brown. Killed by the same
 together like "Prairie Dogs." (Skull received in late
 June 4, 1912. Iris brown. Trapped near burrow.
 " 5, " Skull only. Cooked in sun. Color
 June 6, 1912. Iris brown. Trapped.
 " 8, " Caught in a box of beads.
 " 9, " "
 " 10, " "
 " 11, " "
 " 11, " "
 " 18, " " 6 Run across dry wash together.

5596		Jebel (on maps)	
319	Xerus	F ad. Ebo (C7) or Gibou (C)	Sief village. June 20, 1912.
7597	"	♂ ad. do	do
320	"	♂ ad. do	do
7598	"	♂ ad. do	do
321	"	♂ ad. do	do
7599	"	♀ ad. do	do
322	"	♀ ad. do	do
7600	"	♀ ad. do	do
323	"	♀ ad. do	do
7601	"	♀ ad. Malata (same)	
324	"	♂ ad. do	
7602	Yellow + gray Bat.	♂ ad. do	
325	of Cynis + Hedgehog	♂ ad. 7603, 7604, 7605, 7606	
7607	as above	♂ ad. Lake Rudolf, S.E.	
326	"	♀ ad. do	do
7608	"	♀ ad. do	do
327	"	♀ ad. do	do
7609	"	♀ juv. do	do
328	"	♀ ad. 10 M. S.E. of do	do
7610	"	♂ ad. do	do
329	"	♂ ad. do	do
7611	"	♂ ad. do	do
330	"	♂ ad. do	do
7612	"	♂ ad. do	do
331	"	♂ ad. do	do
7613	"	♂ ad. do	do
332	"	♂ ad. do	do
7614	Bat, long-eared, gray + yellow. ♀ ad. Indumumara		
333			
7615	Dassie	♂ ad. Water tank, do	
334			
7592	Number of Dick-Dick from Turtale		
7616	Hedgehog	Desiccated skin & bones except head	
7617			
536	Xerus	♀ ad. July 17, 1912	
7618	"	♀ ad. " 18, "	
337	"	♀ ad. " 19, "	
7619	Jerboa Mouse	♀ ad. " 19, "	
7620	"	♂ ad. " 19 "	
339	"	♂ ad. " 19 "	
7621	Spring Mouse	♀ ad. " 20 "	
7622	"	do	do
341	Tree Squirrel, small	♂ ad. " 20 "	do

- 7623
 342 Merkat ♀ ad. July 20, 1912
 7624
 343 Xerus ♂ ad. July 21, 1912
 7625
 344 Small Tree-Squirrel ♀ ad. July 22, 1912
 7626
 345. do ♀ ad. do
 7627
 346. do ♀ ad. July 24, 1912
 7628
 347 Xerus ♂ ad. July 25, 1912
 7629
 348 Lepus ♂ ad. do
 7630
 349 Xerus ♂ ad. Aug. 1, 1912
 7631
 350. Lepus ♂ ad. Aug. 3, 1912
 7632
 351 " ♂ ad. Aug. 4, 1912
 7633
 352 Bat, long-eared, yellow + gray ♀ ad. Aug. 6, 1912
 7634
 353. Rat, coarse-haired ♂ ad. Aug. 7, 1912
 7635
 354 Scirurus, small tree-squirrel ♀ ad. Aug. 9-12
 7636
 355 Monard Gopher ♂ (juv.) Aug. 10, 1912
 7637
 356 Long-eared Bat, gray - ad. Aug. 16, 1912
 7638
 357 Cercopithecus (Mandrill) ♀ ad. Aug. 9, 1912
 7639
 358 Xerus (white + dark lines on sides). ♂ ad. Aug. 19, 1912
 7640
 359 Long-eared Bat, gray. ♂ ad. { Matus } Aug. 21, 1912
 7641
 360 do ♂ ad. { killed } Aug. 21, 1912
 7642
 361 do ♂ ad. { shot } Aug. 21, 1912
 7643
 362 do ♂ ad. do
 7644
 363 Lemur ♂ ad. Aug. 25, 1912
 7645
 364 do ♂ im. do
 7646
 365 Bat, long-eared, gray ♂ ad. Aug. 28, 1912
- North base of Endotot Mountain, B.E.A. (3 together)
 South " " Very abundant here
 do
 do [Skin here also skin?]
- Eer'rere Villages, B.E.A.
 Er-re-re Villages, B.E.A.
 Guaso Nyero River, 8 m. E. of Marsabit road crossing, B.E.A.
 do
 Sakiunda River, S. of the Guaso, B.E.A.
 do
- Lower edge of Meru Forest, B.E.A.
 Meru Swamp, Equator, B.E.A. All black.
 Tana River, bat camp 2 + 3. Dissipated; caught on thorn.
 Meru Forest, B.E.A.
- do Frick's No. 127
 Tana River, Camp No. 5, B.E.A.
- " " 6, " { Hanging close together, was
 a living, breathing, earthy
 other.
- " " 6, "
- " " 6 "
- Tana River opposite mouth of Shika River, B.E.A.
- do
- Boulder Hill, Shika River, B.E.A.

- 7647
365. Bat, long-eared, gray. ♀ ad. Aug. 28, 1912. Thika River at Boulders Hill, Ihanga Hills, BEA
7648. ^{♂ ad.} do
366. Dassie ^{do} Big Bend Hill (Camp 3 on Thika), Thika River, BEA
7649. " ^{♀ ad.} do
7650. Tree Squirrel ^{♂ ad.} Escarpment, BE Africa. alt. 7390 feet
7651. " ^{♀ ad.} " 9. " do

44



Shotgun Ammunition

No. 1	- 150
" 4	- 250
" 8	- 425
" 10	- 1300
Total	2125

00 Buck	150
8 shot	150
Total	300

Dhaffa, June 25, 1912. The sun set, on
a level plain, at 6:46.

Malele, BEA. July 27, 1912 - Two species
of Crows (Tow-tailed Raven & *C. edithae*) are
very abundant on the river here, perching
in great flocks in the branching palms.
Aug. 12, 1912. Shot 2 ♂ Pytela. First bill red.

Division of Birds

Aug. 23 in 3 mornings off from
Makindu, eastward along the
E. L. found *Alauda* *franklinii* in

1. Crocodile. White Lake Abaya, Abyssinia.
March 22, 1912. One hind foot (left, salted).
preserved; also 2 largest hind claws of R. foot.
Length, 14.67 feet. Greatest diameter, 23.5 in.

Arrived in Djibouti Nov. 22, 1912

- No. 666. Yellow + Gray Bat ♀ ad. Gato River near
Gardula, Abyssinia May 4, 1912
- No. 888. Dick-Dick. Same locality, April 5, 1912
Skin, skull + leg-bones.
- No. 999. Felis ♂ ad. Gato R, near Gardula May 9.
Head + body 24 m. lcs., part v. t., 14.
hind foot 6; nose to rump 4.75;
ear crown, 2.8; ear notch, 2.6.
Iris yellow. Weight 9 lbs Avon.
- No. 1010. Yellow + gray Bat ♂ do loc. + date } matead
" 1011 " do ♀ do }
- No. 1000. ♂ ad. very large Dick-Dick. Gato River
near Gardula (4000 ft.), Abyssinia Horn 3.4.
May 11, 1912. Skin (salted) skull + leg-bones (dry).

M'Fanga River-mouth crossed at its junction
with the Fanga River, Aug. 15, 1912

Set Birds' nests and Eggs.

No. Gato River, near Gardula, May 1, 1912: -

- 1 Medium-sized Black-headed Yellowthroat. 4 eggs + nest
2 do do
3 Same locality, ^{do} (see skins) April 28, 1912 3 eggs + nest
4 do do
5 White eggs. nest + 3 eggs + nest
Same locality. April 28, 1912
~~Myiochanes~~
6 ~~Get odd blue, freckled brown, small egg. No nest.
This was brought me by a boy. I have several sets
of this species. Same locality & date, as No. 5.~~
7 Nest of Nectarinia? A boy brought me this nest
with 7 eggs of 3 species. The two eggs that he
said were in the nest when found are still
packed in it, in a paper cartridge box. Sets Nos.
8 (2 eggs) and 9 (3 eggs) were also in the nest,
when it was handed to me by the Galla boy.
Gato River, ^{near} Gardula, May 1, 1912 ^{See nest with} ^{6 b,} ^{egg numbered} ^{bottom}
8 2 slate blue, lilac spotted eggs in above nest
9 ²⁻¹²⁻² ~~Sexual white~~ ^{Myiochanes} eggs (2) do
10 Same locality, April 29, 1912. 4 larger blue eggs,
spotted with brown, brought me in Weaver's nest
11 Same locality, Apr. 29. 3 smaller blue eggs,
freckled all over with reddish brown. Brought
me in a Weaver's nest. Egg is medium
size black faced Yellowthroat

12. Nest + 3 eggs, plain white, 19×13.5 ; 19×13 ; 19×13.5 . Eggs much incubated, all broken in attempted ^{blowing} /
Smallst black-faced Yellow Weaver.
- Gato River, near Gardula, Abyssinia, May 4, 1912.
13. Nest + 2 eggs of medium sized Black-faced Yellow Weaver. Gato River, May 4, 1912.
- I took this nest myself. Identification positive.
14. Nest + 3 eggs same as No. 12. Plain white, measuring 19×13.5 ; 19.5×14 ; 19×13.4 . Same locality, May 4, 1912. Smallest Black-faced Yellow Weaver.
15. Pair of nests, together. ♀ smallest black-faced Yellow Weaver shot beside these nests. Gato River near Gardula, May 4, 1912. There were no eggs.
16. 3 Eggs. No nest. Brought me by a Galla boy at Gato River near Gardula, Abyssinia, May 4, 1912. Eggs white, freckled with reddish brown. Species?
17. Red-cheeked Dromon-Blue. Nest and 6 eggs. Gato River near Gardula, Abyssinia, May 1, 1912. Eggs freckled in wooden box. Nest in cartridge box.
18. Three ^{pegs} five eggs. Turdus? Gato River, etc., May 1, 1912. Brought by Galla boy, in what appeared to be a nest lining composed mostly of coarse stems of grass.
19. Nest + 2 eggs (plain white) of Drepanoides ^(short-tailed sparrow). One egg smashed. Brought me by Galla boy.

20. *Hypphantornis*, larger of the two species here.
Nest cavity, 6 inches in diameter, at end of
a tunnel 2½ feet in bluff bank, near bottom,
contained a tea-saucerful of wings of beetles
and other insects. An old egg, ^{apparently} originally
plain white, nearly equally rounded at both
ends had been punctured & contents removed
by insects. Measurements: 24 x 19.5. An old bird
flew out when the tunnel had been dug out to
within a foot of the nest cavity. Gato River
near Gardula, Abyssinia, May 6, 1912.

21. *Hypphantornis* (middle sized species). Female parent
^(marked "H") was shot beside an unfinished nest. Another nest
on the same small tree contained white eggs
spotted with reddish brown. This one egg, taken
from the oviduct of the parent, has a blue
^{nest not taken} ground color. Gato River, near Gardula, May 6, 1912.

22. *Hypphantornis*. Female parent,
^(♂) (marked "I") was shot inside of nest. Nest con-
tained 2 eggs with blue ground color. One egg
was marked by shot. Nest + 1 egg preserved.

23. *Hypphantornis*. Nest + 3 eggs, ground
color white spotted with reddish brown. In a
tree beside the one in which no. 22 was.

24 *Hypphantornis*. Nest + 2 eggs, ground
color blue, small, spots very distinct on a
small tree beside the one in which no. 22 was all
on the Gato River May 6, 1912.

25. Nest only. Hyphautornis. Two eggs, white, spotted with reddish brown well broken by shot. Female killed inside of nest (see specimen label), May 6, 1912. Gato River, Abyssinia
26. 1 dark-colored egg, given me by Dr. D. G. Rafferty, who found it in a rather large, hanging nest, near the Gidabo River, same place and date as my Jacana specimens (see labels on them for date).
27. Set of 3 eggs of Long-tailed Flycatcher. Tail of one parent preserved. A male white-tailed bird was seen in the same tree as the nest Gato River at 4,500 feet, near Gardula, Abyssinia, April 13, 1912. Nest preserved.
28. Nest + 3 young (in alcohol) of Long-tailed Flycatcher. See label attached to nest. Gato River near Gardula, April 13, 1912.
29. Cosyphura? Nest and 2 eggs (fresh) of Orange-breasted Thrush. Taken with parent (see label for date) at 4,000 feet, Gato River near Gardula, Nest in cartridge box, eggs in wooden box.
30. Long-crested Turaco. Broken shells of 2 eggs, embryos in alcohol, + skin of ♀ parent. Gato River near Gardula, Abyssinia April 18, 1912. Altitude 4,000 feet

From Gato 4000ft. - (A) (April 21, 1912.)

31. Pernis Falco, 1 egg taken from the
ovariole of bird shot. Labelled & shipped
with following 2 sets in "Adis" box.

32. do set of 2 eggs ("B") do

33. do 3 ("C") do
Only 2 eggs sent in "Adis" box.

34. Telephorus. Brown-winged Bush-Shrike.

Nest and 3 eggs. Parent seen sitting on nest,
and ♀ parent shot as she flew from it. See
Skin label for date. Gato River near Gardula
Dissection showed that the last egg had
been laid.

35. Shrike, long-tailed, chestnut patches on sides of ♀.

Nest a loose affair of sticks ^{containing 2 eggs.} One egg, pip, col.,
with young ready to hatch, preserved without
blowing. Embryo of half of other egg - shell preserved.
♀ Parent sat very closely. Both parents shot

(see skins for date) Gato River near Gardula
Effects of dark brown oil on nest and mostly forming a circle near that end
Egg measures 25X18.5. Ground olive-buff, with rounded spots and

36. Passer. Nest + 6 eggs. Parent preserved (April - see
skins of parent for date) Gato River, near Gardula.

37. Passer. Nest + 4 eggs. Same data as above, ^{parents} no ~~seen~~

38. Hypsipetornis? Smaller species of Black-faced
Weaver. Nest, 2 eggs, and both parents
Gato River near Gardula, Abyssinia.

May 9, 1912. A larger Hypsipetornis had started
a nest on the same tree, & do with this nest.

39. Ureognathus bengala. Red-cheeked Cordon-bleu
 Nest and 6 eggs. Gato River, etc. Apr. 19, 1912
40. — 4 " Set of 4 eggs do Apr. 19, 1912
41. — 3 " 3 " do " 21, 1912
42. Nest and 2 eggs. Red-cheeked C-bleu do " 29, 1912
43. " " 3 " do do " 29, 1912
44. Set of 2 " do do " 24, 1912
45. " " 5 " do do " 23, 1912
46. " " 5 " do do May 4, 1912
47. Odd eggs 7 " do do April 19-30, 1912
48. Hypothymis madagascariensis, Gato River, etc. April 20, 1912
 Ground color white, spots very dark, 4 eggs.
49. do ground blue " 3 "
50. do " white, spots fine & thick 3 "
51. do " blue, do 4 "
52. do " , egg large thickly spotted. 1 egg
53. Neotaraba. Nest, one egg imbedded at bottom,
 Compare this with sets 7 and 8. The common
 species (see many skins) here. Nest taken May 7,
 1912. Gato River near Gardula, Abyssinia, 4000 ft.
54. Turdus pelivire? Set of 3 plain blue eggs.
 Gato River near Gardula, April 23, 1912
55. 2 Eggs, plain white, somewhat soiled, measuring
 2.9 x 2.5 and 3.0 x 2.5. Gato River near Gardula,
 Abyssinia, May 1, 1912.

56. Three (3) eggs, supposed to be those
of the Abyssinian form of Tinamotis
grayii. Gato River near Gardula,
Abyssinia, May 3, 1912. Eggs soiled
white, unspotted, measuring 40 X 29;
40 X 30; 40 X 29.5. Shells enormously
thick and hard.

May 11, 1912. Gato River near Gardula, Abyssinia.—

The following sets of nests & eggs were taken:

57. Set of 5 eggs of Spur-Howl.

58. Nectarinia Nest, 2 eggs & ♀ parent.

One egg fresh, the other cracked and dessicated. Nest
attached to the extremity of lowest branch of a tree,
growing in an open place near a forest, with a
fine specimen of the giant euphorbia beside it.
Female parent came to nest, male not seen.

59. Lead-colored Bush-Shrike. Nest, 2 eggs & both
parents taken. Nest found May 8, contained 1 egg, on
May 11, 2 eggs, fresh. Nest placed on horizontal low
limb of large tree growing in the middle of a thicket
of bushes and vines. The nest was partly supported
by twigs, but there were no coarse sticks forming
a base to the nest, it being complete as preserved.
Both parents came to nest and uttered cat-like
cries & hissing sounds.

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(black-chinned)
Sets (field numbers) of greater Bishop-bird were
as follows: No. 1, 3 eggs; 4, 2 eggs; 5, 2 eggs;
6, 3 eggs, 7, 2 eggs. All were more or less incubated
All complete sets. Sets 1 and 4 were blown.

Sets (field numbers) of lesser (red-chinned) Bishop-
bird were as follows: No. 2, 2 eggs; 3,
4 eggs; 8, 3 eggs; 9, 3 eggs. All were
complete sets, and all more or less incubated
Sets 2 + 3 (field numbers) were blown & preserved

Four nests of the Greater (black-chinned) red
Bishop-bird and four nests of the Lesser
(red-chinned) Bishop-bird were found in
a sparse growth of small trees, at the border
of a forest, in heavy grass. All of the nests
were in the tallest grass, near the tops. I
gave each nest, + egg, + parents field numbers
(1 - 9). These numbers are with the nests and
on back of labels of parents, so I give them
in parenthesis here, following the regular
numbers. All of these eggs were more or less incubated
and I only succeeded in blowing two sets
of each species, the others containing large embryos.
See skin labels for date.
60 (field no. 1). Nest, 3 eggs, and ♀ parent. Greater
Bishop-bird. Eggs considerably incubated. Blown.
61. (No. 4). Greater Red Bishop-Bird. Nest, 2 eggs and
both parents (killed same shot) preserved. Eggs
62. (No. 5). do Nest, 2 eggs. Eggs:
plain pink, without black dots. 18.2
contained large embryos. Put to macerate. 18.5 X 13; 18 X 13.
63 (No. 6). do Nest, 3 eggs.
Eggs contained large embryos. Put to macerate. Blue
dotted all over but more at great extremity with black. Meas.:
18 X 15, 17.5 X 14.8; 17.7 X 14.8.

64. (No. 7). do Nest + 2 eggs
Eggs contained large embryos. Put to macerate.
Light greenish blue, very sparsely dotted with black.
18.5 X 14; 18 X 14.2.

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65 (field no., 2). Lesser (red-chinned). Bishop-Bird.
Nest and 2 eggs, with both parents, preserved.
Egg: slightly incubated, but blown.

66. (no. 3). do

Nest, 4 eggs, and female parent preserved.
Eggs slightly incubated, but blown.

67 (No. 8). (Large embryos.) do (eggs put to macerate)
Nest, 3 eggs, plain deep blue (no black dots).

~~17.5x13; 16.7x13.2; 16.5x13.~~

68 (No. 9). (Contained embryos) do (put to macerate,
Nest, 3 eggs, plain deep blue (no black dots),
rather elongate ~~17x13; 16.5x13.2; 16.6x13.2,~~

69. *Gymnathus bengala*. Red-cheeked Louron-flax.
Gato River near Gardula (4000 ft.), Abyssinia.
May 12, 1912. Set of 5 immaculate white eggs,
containing large embryos - 3 broken in blowing.

70. Numida Set of 14 eggs,

measuring: 53×41 ; 52.5×40 ; 54.5×42 ;

53×42 ; 52×43 ; 54×41 ; 54×42 ; 53×42 ;

51×41.5 ; 52.5×41.5 ; 53×41 ; 53.5×42.5 ; 51×40 ;

52.5×40 . This is the largest clutch I have seen. The eggs are large, rather pale and not much pigmented, contained large embryos. I drilled them all in two places each, and placed them at the foot of a tree hoping that ants would clean them.

71. Nunida Set of 9 eggs,
measuring: 54×38.2 ; 51×38 ;
 52×39 ; 52.5×40 ; 52×39 ; 53×38 ;
 52×40 ; 53×39 ; 53×37.5 . Medium
sized eggs, rather pointed at lesser
extremity. Uniformly covered with small,
faint pigment blotches, something like
Turkey eggs. Contained large embryos.
Put out on the ground for ants to work on.

72. Nunida Set of 13 eggs,
measuring: 51×40 ; 52×38 ; 51.5×39 ;
 49×40 ; 50×40 ; 52×38 ; 54×39 ;
 49.5×39 ; 53×39.5 ; 49×39 ; 50×40 ;
 52×40 ; 51×40 . These eggs have a
rather deep brown color, are thickly covered
with small pigment spots, and are deeply
indented. Contain large embryos; put out
on the ground for ants to clean

73. Nectarinia Gato River, near Gardula (4000 ft.), May 14, 1912.
Nest, 2 eggs, and
♀ parent. Beautiful eggs, hard incubated (drilled but
not crushed). Very elongate & pointed at smaller
extremity. Ground color bluish slate, Both ex-
-remities are unmarked. The grayish brown
markings are aggregated and coalesced around the
great extremity. These markings vary in shade and tend to
form longitudinal smears, + mottling on the sides! $7X15/16.5 \times 11$.

Isato River (4000 ft.) May 13, 1912

74. Red-cheeked Cordon-bleu ^(egg, large, rounded) Nest and 4 fresh eggs. I watched the birds building the nest in a dense, thorny bush, in a grassy opening. The nest was 4 feet above the ground. The parents were often seen entering it or leaving. This is a typical nest + nesting site. [On May 13 I found 1 egg in a new, but unused nest of the medium Hypphantornis. The parent flew out. On May 13, I also found another set of 5 incubated eggs in a Hypphantornis nest. On May 14, I took 6 incubated eggs of the Cordon-bleu in a nest of the least Hypphantornis + shot the Cordon-bleu beside the nest. This makes three cases, in 2 days' collecting, of the Cordon-bleu occupying weaver bird nests. In each case some of the fine grass used by the cordon-bleu in building its own nest had been added as a lining to the weaver bird's nest.]

75. Least Hypphantornis 1 broken, desiccated egg, measuring 18 x 13 mm. Nothing preserved. Nest 3 meters above the ground at end of low branch of a thorn-tree. Usual style  Gato River. May 13 [On May 14 Dr. D. Rafferty took me to see a nest of this species. It was just finished, no eggs, both birds present.]

Z Note. - The long, white-tailed Flycatcher is one
A of the shyest birds; but when the old male
X ~~Dapries~~ himself alone & secure, he bursts
M into loud cries of Pee-wee-wee' often
L repeated. Its alarm note is a sharp; and
S it also ^{whistles} utters a soft, round, single note,
T probably a call to the female.

B R D O N M N T K J

76. Nectarinia Nest and 1 egg. The
nest contained but one egg, considerably incubated.
More heavily and generally marked (all over) 27
the nest F. 3. Nest at end of a thorny vine,
in a small thicket at edge of an opening,
and at the side of a ravine. Gato River May 13.
[Note. - Three eggs ready to hatch were found
in a nest of the medium-sized Hypothymis.
Ground-color white evenly, dashed with reddish.]

77. Telephorus Nest, 2 eggs & 2
parent. Nest found May 11 with 2 eggs. Taken
May 13, still 2 eggs. ^{slightly incubated} Gato R near Garabula.
Nest in a leafy bush near a small thicket
in open grassy country, 2 feet above ground.
I saw another nest, May 9, with 2 fresh
eggs, in thorny Solanaceous shrub, 3 feet
above the ground. Next time seen the nest had
been torn from the bush & eggs disfigured.]

78. Red-checked Cordon-bleu. Nest + 1 egg. The nest
is a new but abandoned middle-sized species
of Hypothymis, lined, by the Cordon-bleu, with
fine grass. Parent Cordon-bleu flew out. 1 fresh egg
Gato River near Garabula, 4000 ft. Abyssinia
May 13, 1912.

79. Hypothymis, middle-sized. Nest only. Gato
River near Garabula, 4000 ft., Abyssinia
May 13, 1912.

- 80 to 83. *Hypothamnus*, middle sized species.
Four well-constructed nests, taken May 1,
1912, Gato River, 4000 feet, near
Gardula, Abyssinia.
84. Numida Set of 10 eggs
✓ Gato R., etc. May 1, 1912. Slightly
incubated. Complete set.
85. Turancolinus grantii. 3 eggs (set).
Gato R., etc. April 29, 1912.
86. Numida Set of 7 fresh
✓ eggs. Bird probably not through laying.
Gato R., etc. April 25, 1912.
87. Passer? Nest (probably of a
different bird) and 4 eggs, brought
me by a Galla. Eggs considerably
incubated. I have seen several of these
softly-lined nests, but do not know
what species they belonged to. Gato
River, etc. May 15, 1912.
88. Passer? Three eggs, fresh, same
species as above (No. 87), also brought
in by a Galla native, without nest.
Gato River, 4000 feet, May 15, 1912.
- 89 Two rounded, plain white eggs brought
me by a Galla, at Gato R., etc. April 22, 1912.

90. Numida Set of 2 eggs
 Gato River near Gardula, 4000 feet, Abyssinia May 1, 1912. Eggs darkly colored.
91. Numida Nine eggs,
 brought me by a Galla, May 6, 1912.
 Same locality. Probably not all laid by 1 hen.
92. Numida Set of 8 eggs
 Same locality. May 3, 1912.
93. Numida Set of 6 eggs.
 Same locality. April 21, 1912.
94. Spurfowl. Set of 7 eggs
 Same locality. April 24, 1912.
95. Spurfowl. Set of 4 eggs
 Same locality. May 7, 1912.
96. Spurfowl. Set of 4 eggs.
 Same locality. May 11, 1912.
97. Francoolinus grantii Set of 3 eggs
 same locality May 12, 1912
98. Telephoneur, small May 26, 1912
 On May 18th the nest contained 1 egg; on
 " " 21 " 3 eggs. Nest

visited on May 22, 23, 24, 25, + 26, It was
 not until the last date (May 26) that I was
 able to shoot the parents, but, on going to the
 nest, only a single egg was in it, the other
 2 being crushed under the bush. Nest
 3 feet above ground on a bush in heavy

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98 ~~7c.~~, ~~small species~~, horns. Egg differs from the larger species (set 100) in having the spots less reddish brown, more smoky or less sharply defined, and in having many purplish or lilac brown. Egg cracked & broken in blowing, fragments preserved. Distribution of spots similar to set No. 100, being scattered over the entire egg, most sparse at the little end and ^{close} mostly aggregated in a circle next to the great end. In both species the ground color is buffy white, purplish before blown.

89

(98) grass. Parents exceedingly shy. The nest contained 3 eggs on May 21, 22, 23, 24, & 25. The nest, as preserved, is entire, there being no coarse outer structure. It was set down between 4 rather stout branches, to which it was formerly attached by spider webs. Both parents preserved. Eggs: 23.8 X 18.1.

Species unknown meters the
99. Small nest, like Vireo's, 2 ~~at~~ above ground,

in a deep narrow canyon. Bodessa. June 1, 1912.
Eggs measure 23.5 X 18; 23.6 X 18.1.

100. Telephorus ~~large species~~ (large species).
✓ Nest and 2 eggs. Male parent seen to fly from nest, and shot in a tree without losing sight of it for an instant. Identification positive (see skin). In a small, spreading tree, 2 meters above the ground.

Bodessa, Abyssinia, May 3, 1912.

101. Black-faced red Weaver. Nest, fragments of eggs, and ♂ parent. This nest was found + ♀ parent seen to enter it on May 20 (?), when the ♂ parent was collected. I visited the nest several times before May 26, when the eggs, plain blue, were found smashed beneath it. The ♀ was seen each time but the last. ^{5 May} 2 sets of plain blue eggs brought me at Gato were this species, as I saw

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(Red Weaver Continued)
the same kind of nests beside the Gato R.
& in a canyon near it, where I shot a
male specimen of this bird. I
thought these 2 sets of eggs brought me
by Dallas were possibly Turdus
but now I think they were this species.
It is not certain that the red weavers
built this nest, as weavers sometimes
occupy nests built by other species.
These nests are quite numerous
at Bodessa. On May 26, I saw
one nest beside a stream. Beneath
were the abundant droppings of the
young, which had left the nest. I
saw young red weavers a wing there.
The present nest was attached to
a sapling 25 feet above ground, in
a deep canyon beside a running
stream, but I have seen many
similar nests, attached to the tips of
the lowest branches of thorn trees
growing on high ridges.

Red Weavers are rather common
at Bodessa. I have seen them
29 on high grassy ridges, but
usually in valleys where there was water

✓ 102. Francolinus grantii, 2 Dried eggs
found under the tree where I pitched my
tent on the Sagon River, Abyssinia,
June 3, 1912.

✓ 103 Pterocles 2-banded. Set of 3 eggs. ♀
flushed from nest, a slight cavity in loamy
soil in scant very weed growth on a
low ridge of plain bordering the Ballal
River at upper Shaffa village, June 25, 1912.
No nesting materials or whatever. Eggs
contained large chicks. Egg equally round at the
size, thickly & quite evenly blotched or marbled with olive-
brown (superficial) and purplish gray underlying markings.

✓ 104 Pterocles 4-banded. Set of 2 eggs, nearly
fresh, one egg badly cracked.

✓ 18 m. S.W. of Hor. Bell. July 2, 1912. Ground
color clay color, ^(R. Negru) quite evenly spotted all over
with reddish brown (superficial) and purplish
gray (underlying). Largest spots 2 mm., smallest
 mere dots.